

WHAT IS CLAIMED IS:

1. An ophthalmic device configured to be applied to an eye of a patient, the device comprising:

an optic configured to scatter diverging light reaching the optic, whereby the depth of focus of the eye is increased.

2. The ophthalmic device of Claim 1, further comprising an aperture disposed within the optic.

3. The ophthalmic device of Claim 1, wherein the optic is configured to forward scatter substantially parallel light reaching the optic and back scatter diverging light reaching the optic.

4. The ophthalmic device of Claim 1, wherein the optic comprises a set of particles.

5. The ophthalmic device of Claim 2, wherein the aperture includes an optical power for vision correction.

6. The ophthalmic device of Claim 2, wherein the aperture has a diameter in the range of about 0.05 mm to about 5.0 mm.

7. The ophthalmic device of Claim 6, wherein the optic has an outer diameter in the range of about 1.0 mm to about 8.0 mm.

8. The ophthalmic device of Claim 1, wherein the optic has an outer diameter in the range of about 1.0 mm to about 8.0 mm.

9. The ophthalmic device of Claim 1, wherein the optic comprises a material having varying degrees of opacity.

10. The ophthalmic device of Claim 1, wherein the ophthalmic device comprises a bio-compatible material.

11. The ophthalmic device of Claim 10, wherein the bio-compatible material is a non-dissolving material

12. The ophthalmic device of Claim 10, wherein the bio-compatible material is polymethyl methacrylate.

13. The ophthalmic device of Claim 10, wherein the bio-compatible material is an opaque material.

14. The ophthalmic device of Claim 1, wherein the ophthalmic device comprises polymethyl methacrylate.

15. The ophthalmic device of Claim 1, wherein the ophthalmic device comprises a medical polymer.

16. The ophthalmic device of Claim 1, wherein the ophthalmic device comprises an opaque material.

17. The ophthalmic device of Claim 1, wherein the optic comprises a bio-compatible material.

18. The ophthalmic device of Claim 17, wherein the bio-compatible material is a non-dissolving material.

19. The ophthalmic device of Claim 17, wherein the bio-compatible material is polymethyl methacrylate.

20. The ophthalmic device of Claim 17, wherein the bio-compatible material is an opaque material.

21. The ophthalmic device of Claim 1, wherein the optic comprises a medical polymer.

22. The ophthalmic device of Claim 1, wherein the optic comprises polymethyl methacrylate.

23. The ophthalmic device of Claim 1, wherein the optic comprises an opaque material.

24. A method for increasing the depth of focus of an eye of a patient, the method comprising:

providing an ophthalmic device comprising an optic configured to scatter diverging light reaching the optic; and

fitting the ophthalmic device.

25. The method of Claim 24, wherein the optic is configured to forward scatter substantially parallel light reaching the optic and to back scatter diverging light reaching the optic.

26. The method of Claim 24, wherein the optic is configured as a set of particles.

27. The method of Claim 24, wherein the ophthalmic device further comprises an aperture.

28. The method of Claim 27, wherein the aperture includes an optical power for vision correction.

29. The method of Claim 27, wherein the aperture has a diameter in the range of about 0.05 mm to about 5.0 mm.

30. The method claim 24, wherein the optic has an outer diameter in the range of about 1.0 mm to about 8.0 mm.

31. The method of Claim 24, wherein the optic comprises a material having varying degrees of opacity.

32. The method of Claim 24, wherein the ophthalmic device comprises a biocompatible material.

33. The method of Claim 32, wherein the bio-compatible material is an opaque material.

34. The method of Claim 32, wherein the bio-compatible material is a non-dissolving material.

35. The method of Claim 32, wherein the bio-compatible material is polymethyl methacrylate.

36. The method of Claim 24, wherein the ophthalmic device comprises polymethyl methacrylate.

37. The method of Claim 24, wherein the bio-compatible material is an opaque material.

38. The method of Claim 24, wherein the optic comprises a bio-compatible material.

39. The method of Claim 38, wherein the bio-compatible material comprises a non-dissolving material.

40. The method of Claim 38, wherein the bio-compatible material is a medical polymer.

41. The method of Claim 37, wherein the bio-compatible material is an opaque material.

42. The method of Claim 24, wherein the optic comprises polymethyl methacrylate.

43. The method of Claim 24, wherein the optic comprises an opaque material.

44. An ophthalmic lens comprising:

a lens body;

an optic located in the lens body, the optic configured to produce light scattering; and a pinhole-like optical aperture substantially in the center of the optic.

45. The ophthalmic lens according to Claim 44, wherein the optic is configured to forward scatter parallel light reaching the optic and back scatter diverging light reaching the optic.

46. The ophthalmic lens according to Claim 44, wherein the optic is configured as a pattern of particles.

47. The ophthalmic lens according to Claim 44, wherein the pinhole-like aperture includes an optical power for vision correction.

48. The ophthalmic lens according to Claim 44, wherein the pinhole-like aperture has a diameter in the range of substantially 0.05 mm to substantially 5.0 mm.

49. The ophthalmic lens according to Claim 44, wherein the optic has an outer diameter in the range of substantially 1.0 mm to substantially 8.0 mm.

50. The ophthalmic lens according to Claim 44, wherein the optic is composed of a material having varying degrees of opacity.

51. The ophthalmic lens according to Claim 44, wherein the ophthalmic lens comprises a bio-compatible material.

52. The ophthalmic lens according to Claim 51, wherein the bio-compatible material is a non-dissolving material.

53. The ophthalmic lens according to Claim 51, wherein the bio-compatible is polymethyl methacrylate.

54. The ophthalmic lens according to Claim 51, wherein the bio-compatible is an opaque material.

55. The ophthalmic lens according to Claim 44, wherein the bio-compatible is an opaque material.

56. The ophthalmic lens according to Claim 44, wherein the optic comprises a bio-compatible material.

57. The ophthalmic lens according to Claim 56, wherein the bio-compatible material is a non-dissolving material.

58. The ophthalmic lens according to Claim 56, wherein the bio-compatible is polymethyl methacrylate.

59. The ophthalmic lens according to Claim 56, wherein the bio-compatible is an opaque material.

60. A method for increasing the depth of focus of the human eye, the method comprising:

providing an ophthalmic lens, the ophthalmic lens comprising a lens body, an optic located in the lens body, the optic configured to produce light scattering, and a pinhole-like optical aperture substantially in the center of the optic; and

fitting the ophthalmic lens.

61. The method according to Claim 60, wherein the optic is configured to forward scatter parallel light reaching the optic and to back scatter diverging light reaching the optic.